## IN THE CLAIMS

Please cancel Claims 1-30 without prejudice and without disclaimer of subject matter.

Please add Claims 31-38 as follows:

31. (New) A method for providing whole-body cooling of a patient, the method comprising:

providing a catheter with a conductive heat transfer element at a distal end thereof; inserting the catheter and heat transfer element into the vascular system of the patient; utilizing the heat transfer element to modify the temperature of blood which flows in heat exchange proximity to the heat transfer element, such that said modification of the blood will accomplish whole-body cooling of the patient.

- 32. (New) The method of Claim 31, wherein the heat transfer element includes at least one fluid lumen through which a working fluid may be circulated.
- 33. (New) The method of Claim 32, wherein the step of utilizing includes circulating a working fluid through the at least one fluid lumen to lower the temperature of the heat transfer element thereby modifying the temperature of blood in the vascular system of the patient.
- 34. (New) The method of Claim 31, wherein the catheter is inserted into the inferior vena cava.
- 35. (New) The method of Claim 31, wherein the conductive heat transfer element is metallic.
- 36. (New) The method of Claim 35, wherein the conductive metallic heat transfer element comprises a plurality of heat transfer segments.

37. (New) A method for providing whole-body cooling of a patient, the method comprising:

providing a catheter with a conductive metallic heat transfer element at a distal end thereof, the conductive metallic heat transfer element comprising a plurality of heat transfer segments, and at least one helical ridge and at least one helical groove formed on each of said plurality of heat transfer segments;

inserting the catheter and heat transfer element into the vascular system of the patient; utilizing the heat transfer element to modify the temperature of blood which flows in heat exchange proximity to the heat transfer element, such that said modification of the blood will accomplish whole-body cooling of the patient.

38. (New) A method for providing whole-body cooling of a patient, the method comprising:

providing a catheter with a conductive metallic heat transfer element at a distal end thereof, the conductive metallic heat transfer element comprising a plurality of heat transfer segments, at least one helical ridge and at least one helical groove formed on each of said plurality of heat transfer segments, and a bellows disposed between each of said plurality of heat transfer segments;

inserting the catheter and heat transfer element into the vascular system of the patient; utilizing the heat transfer element to modify the temperature of blood which flows in heat exchange proximity to the heat transfer element, such that said modification of the blood will accomplish whole-body cooling of the patient.